UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,523	04/18/2000	Pallavi Shah	83000.1069/P3523	1872

7590 07/25/2008

B. NOEL KIVLIN
MEYERTONS,HOOD,KIVLIN.KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER	
TRUVAN, LEYNNA THANH	
ART UNIT	PAPER NUMBER
2135	

MAIL DATE	DELIVERY MODE
07/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/551,523
Filing Date: April 18, 2000
Appellant(s): SHAH ET AL.

Noel Kivlin

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 12, 2008 appealing from the Office action mailed January 8, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

7,100,188	Hejna, Jr.	8- 2006
5,959,677	Date, et al.	9-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 49-54, 56-75, 77-88, and 90-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Date, et al. (US 5,959,677), and in further view of Hejna, Jr. (US 7,100,188).

As per claim 49:

Date discloses a method for controlling access to a continuous stream of a content transmitted over a plurality of communication paths, the method comprising:

transmitting from a server a plurality of notifications for determining a sequence of transmission (Date - col.3, lines 1-22) of said continuous stream of said content via a plurality of communication paths; (Date - col.5, lines 6-34 and col.7, lines 28-45)

obtaining by a client said plurality of notifications; (Date -col.1, lines 60-62 and col.4, lines 41-43)

transmitting from said server said continuous stream of said content (col.6, lines 65-67 and col.7, lines 24-26) via said plurality of communication paths (Date - col.2, lines 46-52) according to said sequence of transmission; and (Date - col.6, line 45 – col.7, line 15)

obtaining by said client said continuous stream of said content by automatically switching communication paths in accordance with said sequence of transmission of said content based on said plurality of obtained notifications. (Date - col.6, lines 14-58 and col.7, lines 45-62)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of

ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. Date discloses continuous stream of content according to sequence of transmission but did not include automatically switching.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further

discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching continuous stream of content by automatically switching paths because re-broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 50: See Date on col.2, lines 11-13 and Hejna on col.6, lines 28-36; discussing said plurality of notifications are transmitted from said server at irregular intervals.

As per claim 51: See Date on col.3, lines 1-18 and Hejna on col.12, lines 1-32; discussing said sequence of transmission of said content determines which communication paths contain which parts of said continuous stream of said content at a given time.

As per claim 52: See Date on col.3, lines 1-5; discussing said plurality of notifications are each encrypted prior to transmission from said server.

As per claim 53: See Date on col.4, lines 47-48 and Hejna on col.12, lines 1-2; discussing client comprises a descrambler for decrypting said plurality of notifications and wherein said plurality of encrypted notifications are decrypted by said descrambler prior to said obtaining by said client said continuous stream of said content.

As per claim 54: See Date on col.2, lines 55-60; discussing said continuous stream of said content is not encrypted prior to transmission on said plurality of communication paths.

As per claim 55: (Cancelled)

As per claim 56: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the comprising viewing said continuous stream of said content via said client without being aware of said automatically switching of said communication paths.

As per claim 57: See Hejna on col.11, lines 38-46; discussing said switching of said communication paths prevents a non-authorized viewer from viewing said continuous stream of said content.

As per claim 58:

Date discloses a method for controlling access to a content having a plurality of parts transmitted over a plurality of communication paths, the method comprising:

transmitting an encrypted notification of a communication path on which a part of said content will be transmitted at a given time, wherein said encrypted notification comprises an indication of said given time; (Date - col.2, lines 6-13 and col.3, lines 1-22)

transmitting said part of said content on said communication path at said given time; (Date - col.5, lines 6-34 and col.6, lines 31-58)

transmitting another encrypted notification of another communication path on which another part of said content will be transmitted at another given time (Hejna – col.13, line 62 – col.14, line 22), wherein said another encrypted notification comprises an indication of said another given time; and (Date - col.2, lines 46-52 and col.7, lines 16-27)

transmitting said another part of said content on said another communication path at said another given time. (Date - col.6, lines 12-58 and col.7, lines 45-62)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content

such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date fails to disclose another part of content of another time, which can broadly be given as portions of the audio/visual work are broadcasted simultaneously.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further

discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically (col.11, line 61 – col.12, line 25) from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse.

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching continuous stream of content by automatically switching paths because re-broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 59: See Hejna on col.11, line 61 – col.12, line 2 and col.13, line 62 – col.14, line 38; discussing the method of Claim 58, wherein said transmitting said another encrypted notification and said transmitting said another part of said content are repeated until all parts of said content have been transmitted.

As per claim 60: See Date - col.1, lines 12-35 and Hejna on col.19, lines 22-23; discussing the method of Claim 58, wherein said content comprises a continuous stream of an individual television program.

As per claim 61: See Date on col.2, lines 11-13 and Hejna on col.6, lines 28-36; discussing the method of Claim 58, wherein said plurality of notifications are transmitted at irregular intervals.

As per claim 62: See Date on col.3, lines 62-67 and col.4, lines 47-48; discussing the method of claim 58, further comprising viewing said plurality of parts of said content via an authorized client, wherein each of said plurality of notifications is decrypted at said authorized client prior to transmission of said corresponding part of said content.

As per claim 63: See Date on col.2, lines 55-60; discussing the method of Claim 62, wherein said plurality of parts of said content are not encrypted prior to transmission on said plurality of communication paths.

As per claim 64: See Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of Claim 58, further comprising viewing said plurality of parts of said content via a client that automatically switches to said communication path and to said another communication path based on said plurality of notifications.

As per claim 65: See Hejna on col.11, lines 38-46; discussing the method of Claim 58, wherein said transmitting said part of said content on said communication path and said transmitting said another part of said content on said another communication path prevent a non-authorized viewer from viewing said plurality of parts of said content.

As per claim 66:

Date discloses a method for controlling access to a content having a plurality of parts transmitted over a plurality of communication paths, the method comprising:

transmitting a notification of a communication path on which a part of said content will be transmitted at a given time from a server to a client, wherein said notification comprises an indication of said given time; (Date – col.6, lines 15-32 and 54-57)

switching automatically by said client of said communication path;

transmitting said part of said content on said communication path at said given time to said client; (Date – col.1, lines 60-62 and col.4, lines 41-43)

viewing said part of said content on said communication path via said client; (Date – col.3, lines 63-67)

transmitting another notification of another communication path on which another part of said content will be transmitted at another given time (Hejna – col.12, lines 1-32) from said server to said client, wherein said another notification comprises an indication of said another given time; (Date - col.2, lines 6-13 and 46-52 and col.7, lines 16-27)

switching automatically by said client of said another communication path; (Date - col.6, lines 54-67 and col.7, lines 24-26)

transmitting said another part of said content on said another communication path at said another given time to said client; and (Hejna – col.13, line 62 – col.14, line 22)

viewing said another part of said content on said communication path via said client. (Date – col.6, lines 31-58 and col.7, lines 45-62)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates

and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date fails to disclose switching automatically and

another part of content of another time, which can broadly be given as portions of the audio/visual work are being broadcasted simultaneously.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions

automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching continuous stream of content by automatically switching paths because re-broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 67: See Hejna on col.11, line 61 – col.12, line 2 and col.13, line 62 – col.14, line 38; discussing the method of Claim 66, wherein said transmitting said another notification, said automatic switching by said client of said another communication path, said transmitting said another part of said content, and said viewing said another part of said content are all repeated until all parts of said content have been transmitted.

As per claim 68: See Date - col.1, lines 12-35 and Hejna on col.19, lines 22-23; discussing the method of Claim 66, wherein said content comprises a continuous stream of an individual television program.

As per claim 69: See Date on col.2, lines 11-13 and Hejna on col.6, lines 28-36; discussing the method of Claim 66, wherein said plurality of notifications are transmitted at irregular intervals.

As per claim 70: See col., lines ; discussing the method of Claim 66, wherein said plurality of notifications are each encrypted prior to transmission from said server.

As per claim 71: See Date on col.2, lines 55-60; discussing the method of Claim 70, wherein said plurality parts of said content are not encrypted prior to transmission from said

server.

As per claim 72: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of Claim 66, wherein said transmitting said part of said content of said communication path, said automatically switching to said communication path, said transmitting said another part of said content on said another communication path, and said automatically switching to said another communication path prevent a non-authorized viewer from viewing said plurality of parts of said content.

As per claim 73:

Date discloses a method for controlling access to a content transmitted over a plurality of communication paths, the method comprising:

transmitting to a subset of a plurality of clients in a secure manner mapping information for a content transmitted over said plurality of communication paths to said plurality of clients; (Date – col.2, lines 25-33 and col.3, lines 1-22)

switching automatically (Hejna – col.13, line 62 – col.14, line 22) by said subset of said plurality of clients to a communication path of said plurality of communication paths that is transmitting said content; (Date - col.2, lines 6-13 and 46-52 and col.7, lines 16-27)

signaling said subset of said plurality of clients with modified mapping information (Date - col.2, lines 33-40) on a repeated basis and (col.6, lines 65-67 and col.7, lines 24-26) during a course of a viewed presentation; and (Date – col.3, lines 63-67)

switching automatically by said subset of said plurality of clients to a modified communication path of said plurality of communication paths based on said modified mapping information. (Date – col.6, lines 31-58 and col.7, lines 45-62)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content

because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date fails to disclose switching automatically.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions

automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching switching automatically the communication means such as channels or paths because re-broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 75: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of Claim 74, wherein said switching automatically by said subset of said plurality of clients to said communication path and to said modified communication path are performed without a viewer of said content knowing of said switching.

As per claim 76: (Cancelled)

As per claim 77: See Date on col.2, lines 11-40 and Hejna on col.6, lines 28-36; discussing the method of Claim 74, wherein said signaling said plurality of clients with modified mapping information is repeated at irregular intervals.

As per claim 78: See Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of Claim 74, wherein said signaling said plurality of clients with modified mapping information is repeated at semi-random intervals.

As per claim 79: See Hejna on col.5, lines 18-23; discussing the method of Claim 74, wherein said signaling said plurality of clients with modified mapping information is repeated at intervals determined dynamically.

As per claim 80: See Hejna on col.9, lines 16-17; discussing the method of Claim 74, further comprising dynamically selecting a next content transmission communication path.

As per claim 81: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of Claim 80, wherein said modified mapping information comprises an indication to allow for switching of said next transmission communication path at a given time.

As per claim 82: See Date on col.6, lines 31-32; discussing the method of Claim 81, wherein said indication comprises a frame number of said content.

As per claim 83:

Date discloses a system for controlling access to a content comprising:

a plurality of communication paths; a server; (Date - col.3, lines 20-23)

a plurality of notifications for determining a sequence of transmission (Date - col.3, lines 1-22) of a content a plurality of parts via said plurality of communication paths; and (Date - col.5, lines 6-34 and col.7, lines 28-45)

a client coupled to said server via said plurality of communication paths;

wherein said plurality of notifications are transmitted from said server to said client; (Date -col.1, lines 60-62 and col.4, lines 41-43)

wherein said plurality of parts of said content are transmitted from said server over said plurality of communication paths in accordance with said sequence of transmission; and (Date - col.2, lines 6-13 and 46-52 and col.7, lines 16-27)

wherein said client obtains said plurality of parts of said content by automatically switching (Hejna – col.13, line 62 – col.14, line 22) communication paths in accordance with

said sequence of transmission of said content (col.6, lines 65-67 and col.7, lines 24-26) based on said plurality of obtained notifications. (col.6, lines 31-58 and col.7, lines 45-62)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission

path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date fails to disclose switching automatically.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work

are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching switching automatically the communication means such as channels or paths because re-broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 84: See Date on col.2, lines 11-13 and Hejna on col.6, lines 28-36; discussing the system of Claim 83, wherein said plurality of notifications are transmitted from said server at irregular intervals.

As per claim 85: See Date on col.2, lines 46-50 and col.6, lines 33-40; discussing the system of Claim 83, wherein said sequence of transmission determines which communication paths contain which parts of said content at a given time.

As per claim 86: See Date on col.3, lines 1-5 and col.4, lines 47-48;; discussing the system of Claim 83, wherein said plurality of notifications are each encrypted prior to transmission from said server and wherein said plurality of notifications are decrypted at said client.

As per claim 87: See Date on col.2, lines 55-60; discussing the system of Claim 86, wherein said plurality of parts of said content are not encrypted prior to transmission from said server.

As per claim 88: See Date - col.1, lines 12-35 and Hejna on col.19, lines 22-23; discussing

the system of Claim 86, wherein said content comprises a continuous stream of an individual television program.

As per claim 89: (Cancelled)

As per claim 90:

Date discloses a system comprising:

a content having a plurality of parts; (Date - col.6, lines 31-32 and 54-57)

for controlling access to a content a plurality of communication paths; a server; and (Date - col.3, lines 20-23)

a plurality of encrypted notifications (Date - col.3, lines 1-5), each of said plurality of encrypted notifications notifying a client of a communication path on which a corresponding part of said content will be transmitted at a given time (Hejna – col.12, lines 1-32), and each of said plurality of encrypted notifications comprising an indication of said respective given time; (Date - col.6, lines 14-58 and col.7, lines 45-62)

wherein said server repeatedly transmits an encrypted notification of said plurality of notifications (col.6, lines 65-67 and col.7, lines 24-26) until all parts of said content have been transmitted. (Hejna – col.13, line 62 – col.14, line 38)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the

channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date repeatedly transmits notifications is broadly interpreted as simultaneous broadcasting content but did not include until all parts of content are transmitted.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous

playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching repeatedly transmits notifications because re-

broadcasting the portions simultaneously and automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 91: See Date - col.1, lines 12-35 and Hejna on col.19, lines 22-23; discussing the system of Claim 90, wherein said content comprises a continuous stream of an individual television program.

As per claim 92: See Date on col.2, lines 11-13 and Hejna on col.6, lines 28-36; discussing the system of Claim 90, wherein said plurality of notifications are transmitted from said server at irregular intervals.

As per claim 93: See Date on col.3, lines 1-5 and col.4, lines 47-48; discussing the system of Claim 90, further comprising a client for obtaining said plurality of parts of said content and wherein each of said plurality of notifications is decrypted prior to said client obtaining said corresponding part of said content.

As per claim 94: See Date on col.2, lines 55-60; discussing the system of Claim 93, wherein said plurality of parts of said content are not encrypted prior to transmission from said server.

As per claim 95: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the system of Claim 93, further comprising a client for obtaining said plurality of notifications and wherein said client obtains said plurality of parts of said content by automatically switching communication paths in accordance with a sequence of transmission of said content based on said plurality of obtained notifications.

As per claim 96:

Date discloses a system for controlling access to a content comprising:

an individual television program having a plurality of parts; (Date - col.1, lines 12-35)

a plurality of communication paths; a selected client; and (Date - col.3, lines 20-23 and 61-67)

a server coupled to said client via said plurality of communication paths (Date - col.5, lines 6-34 and col.7, lines 28-45), said server transmitting a notification to said client of a communication path of said plurality of communication paths on which a part of said program will be transmitted at a given time and transmitting another notification to said client of another communication path of said plurality of communication paths on which another part of said program will be transmitted at another given time (Hejna – col.12, lines 1-32), wherein said notification comprises an indication of said given time, and wherein said another notification comprises an indication of said another given time; (col.6, lines 31-58 and col.7, lines 45-62)

wherein said client automatically switches to said communication path at said given time and automatically switches to said another communication path at said another given time; (Hejna – col.13, line 62 – col.14, line 22)

wherein said plurality of notifications are transmitted from said server to said client at irregular intervals; and (Date - col.2, lines 6-13 and 46-52 and col.7, lines 16-27)

wherein said plurality of notifications is each encrypted at said server. (Date - col.3, lines 1-5)

Date discloses the claimed a plurality of notifications for determining a sequence of transmission as transmission rate evaluation control portion in coded signals that calculates and to determine the transmission rates for the digital data (col.3, lines 1-18). Date further discloses transmitting a plurality of multiplex signals each containing a plurality of digital data and a plurality of video/audio signals on a plurality of transmission paths (col.2, lines 46-52 and

col.3, lines 19-22). Date suggests switch portion so that input terminals corresponding to the channels identified in the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23) and output signals from plurality of modulation portions are digitally modulated in different frequency bands so that the modulation portions and N transmission paths are formed between a delivery portion and a satellite (col.6, lines 54-58). Specification (pg.9-10), discloses a data stream (e.g. motion picture on pay per view station) may be transmitted on one frequency and then switched to another frequency where by switching the frequency an illegal cable box has to know the frequency order that a channel is being transmitted on. Thereby, making it more difficult to view a continuous program. The claimed continuous stream of content is not clearly defined in the specification. Thus, for a person of ordinary skills in the data transmission art, continuous stream of content is given as content such as video/audio signals are transmitted simultaneously or without interruption versus non-continuous stream where obviously there is an interruption of video/audio being received which results interrupted viewing or partial/incomplete program viewing. Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on one transmission path (col.7, lines 24-26). Therefore, Date suggests continuous stream of content because all video/audio signals are transmitted in real time and that the coded signals are transmitted simultaneously. However, Date fails to disclose automatically switching.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Hejna also includes TSM Rate Determiner

that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position n the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals in TDM format at regular intervals or particular time (col.13, lines 20-53). Hejna discloses the TDM composite signal can have a number of channels that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically from different sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, it would have been obvious for a person of ordinary skills in the art to combine the teaching of Date with Hejna teaching switching automatically the communication means such as channels or paths because re-broadcasting the portions simultaneously and automatically

allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64).

As per claim 97: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of claim 49, wherein said each of said plurality of communications paths is a frequency, and wherein said automatically switching communications paths includes changing a frequency over which said content is transmitted.

As per claim 98: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the method of claim 73, wherein each of said plurality of communications paths is a frequency, and wherein said switching automatically by said subset to a communication path and said switching automatically by said subset of said plurality of clients to a modified communication path includes switching to a different frequency over which said content is transmitted.

As per claim 99: See Date on col.7, lines 16-55 and Hejna on col.11, line 61 – col.12, line 25 and col.13, line 62 – col.14, line 38; discussing the system of claim 83, wherein each of said plurality of communication paths is a frequency, and wherein said switching communications paths includes switching a frequency over which said content is transmitted.

(10) Response to Argument

Claims 49-54, 56, 57, 83-87, 97 and 99:

Regarding argument on pg.7 (1st paragraph), that Date's techniques is over respective single transmission path that does not teach or suggest transmitting a plurality of notifications for determining a sequence of transmission of *a continuous stream of content via a plurality of communication paths*.

Throughout, Date shows various examples of his invention in a transmission path and plurality of transmission paths techniques. For example, Date discloses all video/audio signals in channels (#1 to #i) can be real-time transmitted through a transmission path (col.6, lines 65-67) and a plurality of coded signals is transmitted simultaneously on the transmission path (col.7, lines 24-26). Date's invention is not merely limited to a single path or a single transmission technique, but teaches a combination of transmission techniques (col.3, lines 19-22). Date discloses on col.2, lines 40-52 that real-time transmission of video/audio signals and transmission of digital data can be performed on one transmission path and another object of the invention is to provide a transmitter in which maximum transmission rates in a plurality of transmission paths are used effectively for real-time transmission of video/audio signals and transmission of digital data. Therefore, Date reads a continuous stream of content via a plurality of communication paths.

Regarding argument on pg.7 (2nd paragraph), appellants finds no teaching or suggestion in Date for *determining a sequence of transmission* of a continuous stream of content via a plurality of communication paths or for transmitting a continous stream of content via a plurality of communication paths or for transmitting from a server *a plurality of notifications for determining the sequence of transmission*. In addition, appellants disagrees with the

Examiner's interpretation of the claimed sequence of transmission recited in claim 49 and that the rate of transmission is not equivalent to a sequence of transmission.

Examiner have stated in past office actions with regard to the interpretation but have not had any rebuttals or offerings from appellants as to what exactly defines the claimed notification and sequence of transmission. Appellant merely states disagreement to examiner's broad interpretation without defining or pointing to the specification to better explain the claimed notifications and sequence of transmission in appellant's traversal. Therefore, examiner must give the claimed notifications and sequence of transmission the broadest and reasonable interpretation and also with some suggestions in the specification. For the specification vaguely defines what exactly is a notification and the sequence of transmission. Hence, the claimed a plurality of notifications can broadly and reasonably be interpreted as signals. Regarding the determining the sequence of transmission can broadly interpret as any form of information regarding the type or kind of transmission such as the determining can be based on the form of frequencies, rates, or formats of multiple portions/frames/bits of content being transmitted.

Date discloses variety of sequence of transmissions types, such as frequency and rates of video/audio content. For example, Date discloses transmission rates in the respective coded signals from the plurality of encoders are monitored so that the input coded signals are distributed to the plurality of multiplexers on the basis of the transmission rates in the respective coded signals and the maximum transmission rated in the respective transmission paths (col.3, lines 25-31). Date explains the transmission rates measuring portions measure transmission rates corresponding to the channels on the basis of the quantities of generated

information (col.5, lines 6-9). The packet generating portions adds channel identifiers to the data and generates frames for satellite transmission (col.6, lines 31-40). The output signals from the plurality of modulation portions 53-1 to 53-N are digitally modulated in different frequency bands so that the portions 53 and N transmission paths are formed between a delivery portion 54 and a satellite (col.6, lines 54-58). Date also explains the changes in distribution of coded signals where changes to the plurality of coded signals to the plurality of multiplexing portions in order to exchange coded signals of several channels on transmission paths with no margin in terms of transmission rate to new coded signals of several channels on transmission paths having enough margin (col.7, lines 9-15). Therefore, with examiner's explanation as in above, have shown Date reading on the claimed determining a sequence of transmission of a continuous stream of content via a plurality of communication paths or for transmitting a continuous stream of content via a plurality of communication paths or for transmitting from a server a plurality of notifications for determining the sequence of transmission.

Regarding argument on pg.8 (1st paragraph); Appellant agrees/acknowledges the Date reference discusses transmitting data across a plurality of transmission paths but does not teach or suggest transmitting *a continuous stream of content via a plurality of communication paths* and *according to a sequence of transmission*.

Examiner finds by acknowledging that Date transmit across a plurality of transmission paths contradicts to appellant's traversal on pg.7 (above), that Date does not transmit via plurality of communication paths. Date discloses the claimed stream of content is in the form

of video/audio which is known in the art that video and audio is stream(s) of images, pictures, programs, songs, etc (col.1, lines 5-20). The content is streamed as signals being transmitted via channels or paths where Date explains the audio signals are quantized linearly into a width of 14 bits by a sampling frequency of 32 kHz in an A/D portion and signals can be transmitted simultaneously (col.1, lines 31-53 and col.7, lines 24-25). As explained above, Date discloses transmitting in accordance with rates or frequency (sequence of transmission). Therefore, Date reads on the claimed transmitting a continuous stream of content via a plurality of communication paths and according to a sequence of transmission.

Regarding argument on pg.8 (2nd paragraph); that Date does not teach or suggest transmitting obtaining by said client said continuous stream of said content by automatically switching communication paths *in accordance with sequence of transmission* of said content *based on said plurality of obtained notifications*.

As discussed above, Date teaches transmitting a continuous stream of content via a plurality of communication paths according to or based on a sequence of transmission. Hejna is combined with Date to teach automatically switching communication paths.

The claimed sequence of transmission in accordance with the broadest and reasonable interpretation established in Date will also apply to Hejna. Hejna also includes TSM Rate Determiner that produces as output a rate signal representing a TSM rate or playback rate and uses the parameter Interval_Size to segment the input digital data stream in Capture Buffer and to determine a signal TSM rate for each segment of the input digital stream (col.6, lines 6-15). This ability to determine the signal rate suggests the rate or sequence is based on

obtained signals or notifications. The TSM system receives as input a stream of data representing portions of the audio/visual work, a stream of location information used to identify the position in the stream of data being sent (i.e. a sample count or time value), and the rate signal specifying the desired TSM rate or playback rate (col.6, lines 37-45). Hejna indicates that the data transmission rate is well known to those of ordinary skills in the art that the amount of data received by the client substantially matches the client's playback rate for the work (col.9, lines 32-53). Thus, this suggests communicating the sequence of transmission of content is based on the plurality of obtained notification.

Hejna discloses streaming data to multiple clients/recipients that is in continuous stream in multiple channels and paths (col.1, lines 35-52) and providing substantially continuous playback of streaming media (col.2, lines 37-40). Thus, Hejna suggest transmitting continuous stream of content via a plurality of communication paths based on plurality of obtained notifications. Hejna further discloses Time Division Multiplexing signals (TDM signals) are known in the art when two or more audio/visual works can be transmitted across a network and to transmit appropriate signals (notifications) in TDM format at regular intervals or particular time (col.13, lines 20-53). This suggests transmitting notifications on which parts of the content is transmitted at given times. Hejna discloses the TDM composite signal can have a number of channels (paths) that is bounded by the ability of the system to broadcast to clients without the clients noticing a lapse in transmission (col.13, lines 62-65) and that multiple segments from different portions of the audio/visual work are being re-broadcast simultaneously (col.14, lines 1-22). The re-broadcasting of multiple segments from different portions are obviously recombining or reassembling these portions automatically from different

sources such as channels or paths to provide continuous stream of content without the client noticing a lapse (col.11, line 61 – col.12, line 25).

Thus, according to the discussion above, it would have been obvious for a person of ordinary skills in the art to combine Date with Hejna teaching automatically switching communication paths in accordance with said sequence of said continuous stream of content based on the plurality of obtained notifications because re-broadcasting multiple segments from different portions of the audio/visual work simultaneously (Hejna - col.6, lines 6-45 and col.11, line 61 – col.12, line 25) which automatically allows broadcasting to clients without the clients noticing a lapse in transmission (Hejna - col.13, lines 62-64 and col.14, lines 1-22).

Claims 58, 59, 61-65, 90, and 92-95:

Regarding argument on pg.9 (3rd paragraph) and pg.10 (1st paragraph); that Date does not teach or suggest transmitting notifications of a communication path on which parts of content will be transmitted at a given times. Date does not teach or suggest transmitting two different parts of the content over two different communication paths.

Date explains the transmission rates measuring portions measure transmission rates corresponding to the channels on the basis of the quantities of generated information (col.5, lines 6-9). The packet generating portions adds channel identifiers to the data and generates frames for satellite transmission (col.6, lines 31-40). The output signals (notifications) from the plurality of modulation portions 53-1 to 53-N (parts of content) are digitally modulated in different frequency bands so that the portions 53 and N transmission paths are formed between a delivery portion 54 and a satellite (col.6,

lines 54-58). Date also explains the changes in distribution of coded signals where changes to the plurality of coded signals to the plurality of multiplexing portions in order to exchange coded signals of several channels on transmission paths with no margin in terms of transmission rate to new coded signals of several channels on transmission paths having enough margin (col.7, lines 9-15). The transmission rate evaluation control portion determines distribution o the plurality of input coded signals 551, 555, 559, and 563 (notifications) to the plurality of multiplexing portions 52-1 to 52-N (parts of content) on the basis of the calculated difference whereby gives the switch control portion a control signal for specifying a switch to be changed over (col.7, lines 39-48). Accordingly, Date reads on transmitting notifications of a communication path on which parts of content will be transmitted at a given times which suggests transmitting two different parts of the content over two different communication paths.

Claims 66, 67, 69-72, and 96:

Regarding argument on pg.11-12; appellants traverses similarly to claims 58, 59, 61-65, 90, and 92-95 have been addressed above.

Claims 73-75, 77-82, and 98:

Regarding argument on pg.11-12; that Date does not teach or suggest transmitting mapping information for content and is not transmitted over a plurality of communication paths.

Mapping information for a content transmitted over the plurality of communication paths can broadly and reasonably be interpreted as data that was determined to be transmitted in a particular form or in accordance to type of transmission/paths. For

instance, the mapping information once determined distinguishes and/or appoints particular content/portion(s) to be transmitted on a particular path/channel or in a particular order or according to a set time, etc.

Date discloses transmission rates in the respective coded signals from the plurality of encoders are monitored so that the input coded signals are distributed to the plurality of multiplexers on the basis of the transmission rates in the respective coded signals and the maximum transmission rated in the respective transmission paths (col.3, lines 25-31). Date explains the transmission rates measuring portions measure transmission rates corresponding to the channels on the basis of the quantities of generated information (col.5, lines 6-9). The packet generating portions adds channel identifiers to the data and generates frames for satellite transmission (col.6, lines 31-40). The output signals from the plurality of modulation portions 53-1 to 53-N are digitally modulated in different frequency bands so that the portions 53 and N transmission paths are formed between a delivery portion 54 and a satellite (col.6, lines 54-58). Thus, Date suggests mapping information for content being transmitted over. Further, Date discloses setting a mode for identifying channels given coded signals or digital data from variable-rate encoders and digital data generators in the all coded signal and digital data channels on the basis of an external input signal and informs of the mode (col.6, lines 12-20). The switch control portion controls the switch so that the input terminals corresponding to the channels identified by the mode are selected in order at intervals of a predetermined time (col.6, lines 20-23). This reads on mapping information of content transmitted over plurality of paths. Another example, Date

explains the changes in distribution of coded signals where changes to the plurality of coded signals to the plurality of multiplexing portions in order to exchange coded signals of several channels on transmission paths with no margin in terms of transmission rate to new coded signals of several channels on transmission paths having enough margin (col.7, lines 9-15). The transmission rate evaluation control portion determines distribution o the plurality of input coded signals 551, 555, 559, and 563 (notifications) to the plurality of multiplexing portions 52-1 to 52-N (parts of content) on the basis of the calculated difference whereby gives the switch control portion a control signal for specifying a switch to be changed over (col.7, lines 39-48). Therefore, Date teaches and/or suggests the transmitting mapping information for a content transmitted over said plurality of communication paths as claimed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Leynna T. Truvan/

Examiner, Art Unit 2135

Conferees:

/Hosuk Song/

Primary Examiner, Art Unit 2135

/Nasser G Moazzami/

Supervisory Patent Examiner, Art Unit 2136